U.S. Application No.: 10/759,140

REMARKS

In the present Amendment, Claim 1 has been amended to recite mixing a curable rubber composition comprising at least 70 mass% of styrene-butadiene rubber having 35-60 mass% of a bound styrene content as a rubber component and containing not less than 60 parts by weight of a reinforcing filler and not less than 50 parts by weight of a softening agent extractable with acetone-chloroform after curing, based on 100 parts by weight of the rubber component in a closed type mixing machine, and then mixing with a curing agent in a continuous mixing machine. These amendments are supported by the specification, for example, Paragraph Nos. [0025], and [0029] to [0032].

No new matter has been added and entry of the Amendment is respectfully requested. Upon entry of the Amendment, Claims 1-9 will be all the claims pending in the application.

Response to Rejections Under 35 U.S.C. §§ 102 and 103 I.

Claims 1, 8 and 9 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Saito et al (U.S. Pat. No. 5,430,086). Further, Claims 2-7 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Saito et al in view of Eswaran et al (U.S. Pat. No. 5,711,904).

Applicants respectfully submit that the present claims are novel and patentable over Saito et al, alone or in view of Eswaran et al, for at least the following reasons.

According to the present invention, the mixing of the rubber composition is divided into a first stage and a second stage. That is, the rubber composition other than the curing agent is

mixed in a closed type mixing machine at the first stage, and then mixed with the curing agent in a continuous mixing machine at the second stage.

Saito et al discloses on column 6, lines 46-47, that the mixing is carried out in a usual manner and also discloses the use of a Banbury mixer on column 8, line 9. That is, the mixing of the rubber composition in Saito et al is carried out only in a closed type mixing machine, which is entirely different from the present invention (which requires the use of a closed type mixing machine at the first stage and a continuous mixing machine at the second stage).

Furthermore, the mixing described in Saito et al causes the problems as described on Paragraph Nos. [0004]-[0005] of the specification of the present application.

Eswaran et al discloses that all components for the rubber composition are mixed in a continuous mixing machine. In this case, it is required to cool the mixed components other than the curing agent once prior to the charging of the curing agent. Therefore, not only the energy efficiency but also the productivity are deteriorated. Furthermore, if the temperature is too low prior to the charging of the curing agent, the dispersibility of the filler such as carbon black, silica and the like is deteriorated.

Applicants respectfully submit that one of ordinary skill in the art would not have been motivated to combine Eswaran et al, which describes a mixing process in a continuous mixing machine, with Saito et al, which describes a mixing process in a closed type mixing machine. Moreover, even if, arguendo, there might be motivation to combine Eswaran et al with Saito et al, the combination still would not result in the present invention, which requires a closed type mixing machine at the first stage and a continuous mixing machine at the second stage.

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In view of the foregoing reasons, Applicants respectfully submit that the present claims

are not anticipated by or obvious over Saito et al, alone or in view of Eswaran et al, and thus the

rejections should be withdrawn.

II. Conclusion

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue

Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any

overpayments to said Deposit Account.

Respectfully submitted,

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